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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

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ART UNIT

PAPER NUMBER

3672

DATE MAILED:

07/02/99

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/925,506	Applicant(s) FRIMM et al.
	Examiner Tara L. Mayo	Group Art Unit 3672

Responsive to communication(s) filed on 12 Apr 1999.

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

Claim(s) 1-6 and 11-19 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) 3-6, 15, and 17-19 is/are allowed.

Claim(s) 1, 2, and 11-14 is/are rejected.

Claim(s) 16 is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on 12 Apr 1999 is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 7

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 12 April 1999 have been disapproved. Specifically, section lines must be labeled with Roman or Arabic numerals corresponding to the Figure numbers in which the sectional views are shown. See 37 C.F.R. 1.84(h)(3).

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "(C)" and "(D)" both of Figures 2 and 6. Correction is required.

3. The drawings are objected to because of missing section lines, improper lead lines, and missing reference numerals.

In Figure 1, include a section line indicative of the section view shown in Figure 2. Repeat the correction for both Figures 5 and 8. See 37 C.F.R. 1.84 (h)(3).

In both Figures 2 and 8, add a lead line with an arrow touching the surface which reference numeral "10" is indicating. See 37 C.F.R. 1.84 (r)(2).

Add reference numerals to both Figures 9 and 10 to facilitate understanding of the drawings.

In Figure 10, add a freestanding arrow to the lead line of reference numeral "10". Correction is required.

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4. Applicant is required to submit a proposed drawing correction in response to this Office action. Any proposal by the applicant for amendment of the drawings to cure defects must consist of two parts:

- a) A separate letter to the Draftsman in accordance with MPEP § 608.02(r); and
- b) A print or pen-and-ink sketch showing changes in *red ink* in accordance with MPEP § 608.02(v).

IMPORTANT NOTE: The filing of new formal drawings to correct the noted defect may be deferred until the application is allowed by the examiner, but the print or pen-and-ink sketch with proposed corrections shown in red ink is required in response to this Office Action, and *may not be deferred*.

Claim Objections

5. All prior objections to the claims have been overcome by the response (paper no. 8) filed 12 April 1999.

6. Claims 14 and 16 are objected to because of the following informalities: potential rejection under 35 U.S.C. §112, second paragraph.

In claim 14 at line 2, immediately following "said" and prior to "four" insert --at least--. Repeat the correction for claim 16 at line 3.

Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 103

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7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 2, and 11 through 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuller, Jr. (U.S. Patent No. 3,391,666) in view of Lidén (U.S. Patent No. 4,498,412) and O'Reilly et al. (U.S. Patent No. 3,490,406).

Schuller, Jr. '666 shows a semi-submersible vessel (10) comprising a superstructure deck (15), and a ring pontoon (12) having forward, aft, starboard, and port sections, wherein said superstructure is supported by at least four columns (13) located near the forward and aft ends of the starboard and port sections of the ring pontoon. Schuller, Jr. '666 also shows a non-square ring pontoon. Schuller, Jr. '666 does not show forward and aft pontoon sections having centerline partitions, or a first interior vertical partition in each of said at least four columns lying in the same plane as a side of either the forward or aft section of the ring pontoon. See Figures 1, 2, and 5 through 9.

Lidén '412 shows a semi-submersible offshore platform comprising a ring pontoon (15) having forward, aft, starboard, and port sections, and four columns (14), wherein for the

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purposes of storage and ballast, the pontoon includes vertical, centerline bulkheads in each section (21 and 22; col. 2, lines 33 through 37) and the columns each include vertical, centerline bulkheads (26 and 27; col. 2, lines 59 through 63) which are extensions of the centerline bulkheads of adjacent pontoon sections. The ring pontoon shown by Lidén '412 further includes reinforcing, triangular-shaped storage tanks (25) such that its inner perimeter forms an octagon. See Figures 1 and 2.

It would have been obvious to one of ordinary skill in the art of floating platforms at the time of invention to modify the device shown by Schuller, Jr. '666 with centerline partitions in the forward and aft pontoon sections as taught by Lidén '412. The motivation for modification would have been to increase the storage capacity of the marine vessel.

O'Reilly et al. '406 show a semi-submersible platform (10) with a buoyant hull (14) having forward, aft, starboard, and port sides, and a superstructure deck (12) supported by at least four columns (16), wherein two of the at least four columns are positioned such that their centerlines lie in the same plane as a side of the aft end of the hull. See Figures 1 through 4.

O'Reilly et al. '406 are evidence that it would have been obvious for one of ordinary skill in the art of floating platforms at the time of invention to further modify the device shown by Schuller, Jr. '666 in view of Lidén '412 such that a first interior vertical partition in each of the columns lies in the same plane as a side of either the forward or aft section of the ring pontoon. The motivation for further modification would have been to decrease the resonant motion of the deck structure as both the position and spacing of the columns affect the movement of the deck structure as caused by waves.

With regards to claim 11, it would have been an obvious design choice for one of ordinary skill in the art of floating platforms at the time of invention to further modify the device shown by

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Schuller, Jr. '666 in view of Lidén '412 and O'Reilly et al. '406 such that the forward and aft pontoon sections would have a reduced sectional height. The motivation for further modification would have been for ease of transport to the installation site; i.e., the motion of forward and aft pontoon sections having reduced heights would be less restricted by hydrodynamic forces during transport.

With regards to claims 12 and 13, it would have been an obvious design choice for one of ordinary skill in the art of floating platforms at the time invention to make the outside perimeter of the device shown by Schuller, Jr. '666 as modified above by Lidén '412 and O'Reilly et al. '406 octagonal. The motivation for making the design choice would have been to effect desired periods of pitch and roll for the vessel.

With regards to claim 14, it would have been obvious to one of ordinary skill in the art of floating platforms at the time of invention to further modify the apparatus shown by Schuller, Jr. '666 as modified above by Lidén '412 and O'Reilly et al. '406 such that the interior centerline vertical partitions of the at least four columns would form an extension of a side of either the forward or aft section of the pontoon ring. The motivation of further modification would have been to enhance the structural stability of the apparatus.

Allowable Subject Matter

9. Claims 3 through 6 and 15 through 19 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter:

The Examiner herein withdraws her prior art rejection of claims 3 through 6 based upon Applicants' response (paper no. 8) filed 12 April 1999.

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11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Response to Arguments

12. Applicant's arguments filed 12 April 1999 have been fully considered but they are not persuasive.

With regards to originally filed claims 1 and 2, Applicants contend that O'Reilly et al. '406, either alone or in combination with Schuller, Jr. '666 and Lidén '412, do not teach vertical centerline partitions in columns which lie in the same plane as either the forward or aft section of the pontoon ring. The Examiner notes Figure 2 of O'Reilly et al. '406 which clearly shows the centerlines of two columns lying in the same plane as a side of the forward section of the pontoon, upon which the aforementioned reference was relied upon in combination with Schuller, Jr. '666 and Lidén '412 to reject claims 1, 2, and 11 through 14; i.e., O'Reilly et al. '406 was not relied upon for a teaching of vertical centerline partitions, as such, this aspect of the instant invention as set forth in Applicants' claims and any argument pursuant thereto is irrelevant to the Examiner's use of O'Reilly et al. '406.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is (703) 305-3019. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell, can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3597.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2168.



17 May 1999



DAVID BAGNELL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600